

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



196  
R312  
reserve

LIBRARY  
RECEIVED  
★ MAY 30 1944 ★  
U. S. Department of Agriculture

# SOIL CONSERVATION LITERATURE

## SELECTED CURRENT REFERENCES

V.6

March/April, 1942

No. 2

	Page
Periodical Articles .....	26
Book and Pamphlet Notes and Abstracts.....	45
State Experiment Station and Extension Publications	48
U. S. Government Publications .....	51
Personnel and Training .....	54

Compiled by the library staff of the U.S.  
Soil Conservation Service, Washington, D.C.

The publications listed herein may, in most cases, be borrowed from the Library of the Soil Conservation Service by members of the Washington and field staffs.

Loan requests should be submitted on Form SCS-405; those from field offices being routed through Regional Office Libraries. Complete citations, together with library call numbers, should always be included.

Ruby W. Moats  
Librarian



---

---

PERIODICAL ARTICLESCivilian Conservation Corps

Gilbertson, G.H. The CCC marches on. U.S. Soil Conserv. Serv. Soil Conserv. 7(9):212-214, 222, illus. Mar. 1942. 1.6 So3S

Civilian Defense

Ryerson, G.E. Mobilization of service equipment for civilian defense. U.S. Soil Conserv. Serv. Soil Conserv. 7(9):211-212. Mar. 1942. 1.6 So3S

Climate

Climate - the main soil determinant. Taylor Rochester 29(2):46-47, illus. Second Quarter 1939. 470 T21

"A new theory, deservedly called the Russian soil theory, has found all but universal acceptance by geographers and pedologists of our country. Since C.F. Marbut's English translation from the German translation of the Russian, Glinka's, 'Great Soil Areas,' in the 'twenties,' the conception of soils has completely changed here. Previously, physiographic, geologic and other concepts had prevailed in America. Since that time climate has been considered the greatest soil determinant."

Conservation

Hathaway, E.S. Conservation and the web of life. La. Conserv. Rev. 10(1): 24-26, illus. Spring 1941. 279.9 L93C  
References, "p. 26.

Walcott, E.C. Defense waste of natural resources can be avoided, says conservationist. Ky. Sportsman 4(3):2-3, 20-21, illus. Feb. 1942. 410 K41

Conservation. Study and Teaching

Collier, J.E. Conservation education in Arkansas. Jour. Geog. 41(3):101-111. Mar. 1942. 278.8 J82

Dams

Morris, B.T. and Johnson, D.C. Hydraulic design of drop structures for gully control. Amer. Soc. Civ. Engin. Proc. 68(1):17-48, illus. Jan. 1942. 290.9 Am3P

"In the stabilization of gullies, small overflow dams are used to retain silt and to control the stream grade. These dams are simple drop structures similar to those used in irrigation canals. In this paper the development of rules for the proportioning of such dams

is described in terms of the hydraulic requirements for structure performance. The formulas included in the design rules are presented graphically for convenience in application. These rules are based on the accumulated experience of engineers in irrigation and soil conservation work and on the results of a series of laboratory test programs."

Rode, M.C.H. Earth dams must not be left to their fate. Farmers Weekly [Bloemfontein] 62:1090. Jan. 7, 1942. 24 F225

Webb, C.G. Straw dam to offset rainfall deficiency. Farmer-Stockman 55(4):98, illus. Feb. 15, 1942. 6 Ok45

### Farm Forestry

Lauderburn, D.E. Accomplishments in forestry on farms in the South. Jour. Forestry 40(2):81-85. Feb. 1942. 99.8 F768

Paper presented at the 41st annual meeting of the Society of American Foresters in Jacksonville.

Discussions of this paper appear on pages 85-89.

Robbins, Thomas. Farm forestry. N.C. State Agr. 17(2):24, illus. Dec. 1941. 276.8 N81

### Farm Management

Copland, A.A. Farm management under irrigation. Four basic principles are essential to success. New Zeal. Jour. Agr. 63(5):389-392, illus. Nov. 15, 1941. 23 N48J

"Irrigation is the means of high production, but if this is to be achieved certain principles must be remembered.

"(1) A good pasture is the most valuable asset on the farm. The pasture paddock is the manufacturer of 95 per cent of our stock foods. Its efficiency depends upon its composition. If greatest returns are to be obtained from irrigation every care must be taken to establish good pastures. It does not pay to water woods.

"(2) Irrigation must be followed through; adequate soil moisture must be kept up to the plant at all times.

"(3) A pasture must be control-stocked and not overstocked.

"(4) Irrigation development must be gradual, steady and thorough building-up programme."

### Federal Water Policies

Hoyt, W.G. Unusual events and their relation to federal water policies. Amer. Soc. Civ. Engin. Proc. 68(2):211-224, illus. Feb. 1942. 290.9 Am3P

"Within the 10-yr period between 1930-1940 there were profound changes in federal water policies and more than a tenfold increase in federal activities designed to modify the runoff phase of the rainfall-runoff cycle. The total federal expenditure for all purposes increased only about two and one-half fold during the same decade. During the fiscal year 1940 alone, some \$500,000,000 or \$600,000,000 of federal money were spent on measures and practices relating to storage and appurtenant works for irrigation, power, flood control,



water supply, water spreading, debris control, recreation, and wild-life refuge; upstream engineering, agricultural, and land-use measures and practices; and all related activities designed to obtain beneficial conservation, control, regulation, and use of water. During 1930 the sum of money so expended was only about one tenth as much. The purpose of this paper is to inquire into the basic reasons underlying the changes in water policies and the large increase in activities and to discuss in a general way their extent, aims, and objectives."

### Floods and Flood Control

Boston Society of civil engineers. Committee on floods. Report...  
Boston Soc. Civ. Engin. Jour. 29(1, sect. 2):1-160. Jan. 1942. 290.8 B65

Doran, W.E. The Ouse flood problem. Geog. Jour. 97(4):15-235, illus.  
Apr. 1941. 472 G29

Larson, G.E. Research for flood control data. Many neglected sources will yield important information to the patient investigator. Civ. Engin. 12(3):131-134, illus. Mar. 1942. 290.8 C49

"In his haste to secure the hydrologic data necessary for the design of a flood control project, the busy engineer often overlooks the possibility that others may have been over the same ground before. Too late he discovers that much trouble and expense could have been saved if he had had access to the existing records in time. That such existing material is not always easily located, Mr. Larson readily admits, and hence this article. In it he explains what procedures to follow in running down such 'buried' information as may exist in newspapers, county records, hearings before Congressional committees, reports of government departments, court records, and other sources."

McLear, J.B. and Drisko, J.B. Evaluation of flood losses and benefits. Discussion. Amer. Soc. Civ. Engin. Proc. 68(2):332-338. Feb. 1942. 290.9 Am3P

Paper with above title, by Edgar E. Foster, was published in May 1941 Proceedings.

Todd, O.J. Taming "flood dragons" along China's Hwang Ho. Natl. Geog. Mag. 81(2):205-234, illus. Feb. 1942. 470 N213

### Grasses

Lancaster, R.L. Rhodes grass for hay and pasture in South Texas. Cattleman 28(10):33, 36-40, illus. Mar. 1942. 49 C29

"Rhodes grass is an excellent crop in South Texas for pasture, hay, silage or seed. Known scientifically as Chloris gayana, it is a perennial with leafy, slender, erect stems two to four feet tall with long and narrow blades."

Love grass thrives on old field [Greer co., Okla.] Farmer-Stockman 55(1):14, illus. Jan. 1, 1942. 6 Ok45

Wilsie, C.P. and Hughes, H.D. Bromegrass! It's a high-yielding, drouth-resistant and winter-hardy pasture crop for Iowa. Farm Sci. Rptr. 3(1):10-13, illus. Jan. 1942. 275.28 F22

### Grassland Farming

Semple, A.T. Bulldozers and grade A milk. U.S. Soil Conserv. Serv. Soil Conserv. 7(9):215-218, illus. Mar. 1942. 1.6 So3S

"Judging from the findings of experiment stations and the experience of farmers, we have ample justification for believing that we can swing a long way toward grassland farming and at the same time meet the wartime demands for agricultural products. These objectives can be accomplished by making greater use of grass and legumes in crop rotations along with proper liming and fertilizing, and by establishing good pastures and meadows on abandoned lands that are adapted to grass, and on misused land in cultivation but which erodes too readily to be used regularly for cultivated crops."

### Green Manuring

Thorne, D.W. Green manure crops and fertilizers for Utah orchards. Utah Farmer 61(10):8, 19. Jan. 10, 1942. 6 D45

### Highway Erosion Control

Bowers, H.D. Importance of flatter cut slopes in stabilization by vegetative processes. Highway Mag. 33:28-30, illus. Feb. 1942. 288.8 H53

"Erosion is prevented and maintenance funds saved by proper construction as described in article reprinted from California Highways and Public Works."

Glass, J.S. Public highways and erosion control. Ill. Univ. Bul. 39(22): 78-80. Jan. 20, 1942. 290.9 I162

### Hydraulic Research

American society of civil engineers. Special committee on hydraulic research. Progress of society's hydraulic research. Eighth annual report. Civ. Engin. 12(2):113-114, illus. Feb. 1942. 290.3 C42

### Hydrology

Jarvis, C.S. Early contributions to Mississippi River hydrology. Amer. Soc. Civ. Engin. Proc. 63(3):421-444, illus. Mar. 1942. 290.9 Am3P

"Synopsis. Recent research in runoff characteristics of the Mississippi River basin has disclosed certain values among the early records which had apparently been neglected, if indeed they had ever been recognized outside the group responsible for assembling them. These data generally are to be found in some form or other in old reports and records of the War Department, mainly in publications of the Corps of Engineers and the Mississippi River Commission."

"The fragmentary hydrologic data of the earliest record periods are assembled in this paper. They are extended by derivation, estimation,



or comparison with related data from neighboring stations, and tentatively integrated into a continuous record covering 122 years, ending in 1938. Incorporated within the record are the discharge determinations for the 33 years ending with 1860, as published by the late A.A. Humphrey's, Hon. M. Am. Soc. C. E., and Henry L. Abbot, with such adjustments as were found necessary to conform to the hydrographs of calendar years. Likewise, other results, official or unofficial, published or unpublished, were taken into consideration in compiling these basic hydrologic data. A sharp distinction has been made between the official quantities and those derived or estimated. However, such controls and cross references as are available have been used freely, so that the final results, as here submitted, are as nearly beyond challenge as it seems practicable to obtain at this time.

"Trends of both precipitation and the resulting runoff depths from year to year, or from decade to decade or other record segment, are disclosed, with fair correlation generally for the 5-yr or longer period means, and to a lesser extent, on an annual or even a monthly basis."

### Implements and Machinery

Chase, L. W. A study of subsurface tiller blades. Agr. Engin. 23(2):43-45, 50, illus. Feb. 1942. 58.8 Ag83

"Paper presented December 3, 1941, at the fall meeting of the American Society of Agricultural Engineers at Chicago."

Duley, F. J. and Russel, J. C. Machinery requirements for farming through crop residues. Agr. Engin. 23(2):39-42, illus. Feb. 1942. 58.8 Ag83

Morched, H. A. Equipment for subsurface tillage. Agr. Engin. 23(2):46, 64, illus. Feb. 1942. 58.8 Ag83

"Paper presented December 3, 1941, at the fall meeting of the American Society of Agricultural Engineers at Chicago."

### Infiltration

Li, L. L., Anthony, R. D. and Morkle, F. G. Influence of orchard soil management upon the infiltration of water and some related physical characteristics of the soil. Soil Sci. 53(1):65-74, illus. Jan. 1942. 56.8 S03  
"References," p. 74

Smith, H. L. and Leopold, L. B. Infiltration studies in the Pecos River Watershed, New Mexico and Texas. Soil Sci. 53(3):195-204, illus. Mar. 1942. 56.8 S03

"References," pp. 203-204.

"Artificial rainfall was applied to 264 plots, 12- by 30-inches, representing various soil and vegetal types in the Pecos watershed. In general the soils were shallow, calcareous, heavy in texture, slightly alkaline in reaction (ph 7.6-8.5), and developed under an annual rainfall of 12-18 inches. The predominant vegetal types were desert shrub, grassland, and piñon-juniper woodland.

"Soil samples from 126 plots were analyzed in the laboratory, and the data analyzed by statistical methods. The investigation showed a highly significant positive linear correlation between the final

infiltration rate and vegetal density. The rate of infiltration showed a highly significant negative correlation with dispersion ratio, amount of dispersed clay, and silt plus clay. The 5- $\mu$  clay content showed a significant negative correlation with the final rate of infiltration."

### Irrigation and Drainage

Booth, A.W. The portales region: a pump irrigation district in the Llano Estacado. Econ. Geol. 13(1):[97]-105, illus. Jan. 1942. 273.8 Ec7

"The Portales region in Roosevelt county, New Mexico, one of the areas in the Llano Estacado where pump irrigation is carried on, has been serving as an excellent testing ground in answering the questions facing those interested in utilizing ground water."

Clarenbach, F.A. Putting order into drainage programs. U.S. Bur. Agr. Econ. Land Policy Rev. 5(2):19-22. Feb. 1942. 1 Ec7La

"Two reasons for improving ways and means of drainage: The need for expanding food production and the possibility that land drainage may have a prominent place in a post-war rural works program."

Darley, Sir Bernard. The development of irrigation in India. Roy. Soc. Arts Jour. 90(4602):39-56. Dec. 12, 1941. 501 L347J

Eichardt, J. Water - where and when wanted. Irrigation's vital role on the farm in getting the best from the land. Installations to suit many needs. Farmers Weekly [Bloemfontein] 62:1035, illus. Jan. 7, 1942. 24 F225

Gomez-Perez, Francisco. Datos estadisticos de la Comision nacional de irrigacion. Irrig. en Mex. 22(5):335-337, illus. Sept./Oct. 1941. 55.8 Ir76

Spanish. Translated title: Statistical data of the National commission of irrigation.

Gomez-Perez, Francisco. Mexican irrigation in the sixteenth century. Civ. Engin. 12(1):[24]-27, illus. Jan. 1942. 290.8 C49

"Too often the early Spanish pioneers are thought of solely in terms of their conquests and explorations. An examination of their irrigation works proves that they also had outstanding engineering ability. Especially was this shown around the early missions, where the padres combined the missionary spirit with engineering and administrative talent. Prompted by excellent examples in their mother country and aided by an Indian civilization long experienced in irrigation, they planned and executed extensive projects without benefit of construction equipment. This paper by Mr. Gomez-Perez was presented before the irrigation Division of the Society's Convention in San Diego."

Irrigation is problem of economics, says engineer. Hawaii Farm and Home 4(12):6. Dec. 15, 1941. 25 H3191



Jones, L.A. Drainage as a conservation practice. Agr. Engin. 23(3): 97-98, illus. Mar. 1942. 58.8 Ag33

"Paper presented February 4, 1942, at a meeting of the Southern Section of the American Society of Agricultural Engineers at Memphis, Tenn."

Kimball, Frank. What of the Western front? U.S. Soil Conserv. Serv. Soil Conserv. 7(9):223-224. Mar. 1942. 1.6 So35  
Discussion of the Western water problems

Stoddard, Carlton. Meet the modern rain makers. Successful Farming 40(2):[11], 30-31, illus. Feb. 1942. 6 Sul2

"Profitable even on crops like corn and alfalfa, sprinkler irrigation powered by tractor or motors gives an answer to the weatherman."

Williams, G.R. Drainage of leveed areas in mountainous valleys. Amer. Soc. Civ. Engin. Proc. 68(1):3-16, illus. Jan. 1942. 290.9 Am3P

"Various methods of disposing of the drainage from streams tributary to leveed areas are outlined in this paper. Brief consideration is given to the characteristics of these methods in fulfilling the design criterion that local drainage must be disposed of without causing damage appreciably greater than if the streams could flow unobstructed to the main river at low stage."

"The details of a method of analyzing local hydrology and developing capacities of drainage structures under various conditions are presented. Graphs show volumes and rates of rainfall and runoff used in the design storms and floods, and relations between selected capacities and available storage for numerous designs for drainage structures."

Discussion by Merrill Bernard, of above article, appears on pages 143-144

#### Kudzu

Arbour, M.W. Kudzu is drafted. Prog. Farmer (Miss.-Ark.-La. Ed.) 57(3):53. Mar. 1942. 6 So81

Brink, Wellington. Kudzu - a mender of tattered lands. Better Crops with Plant Food 26(1):10-13, 38-40, illus. Jan. 1942. 6 B46

From one kudzu crown: 34,000 acres [Alabama] Prog. Farmer (Ga.-Ala.-Fla. Ed.) 57(2):12, illus. Feb. 1942. 6 F945G

Tisdale, Sam. Kudzu in Alabama. Ala. Farmer 22(5):7. Feb. 1942. 276.8 All

Webb, C.G. Kudzu becomes a glamour girl. Ark. Farmer 44(2):6-7, illus. Feb. 1942. 6 Ar42

Willis, H.M. Kudzu for North Carolina. N.C. State Agr. 17(2):23, 38, illus. Dec. 1941. 276.8 N81



Land, Mined

Bristow, James. Coal strippers practice conservation. Ill. Conserv., Fall Issue, 1941, pp. 12-13, illus. 279.9 I1611

Legumes

Lounsbury, T.F. The new legumes. Successful Farming; 40(2):20, 58-59, illus. Feb. 1942. 6 S12

"Their wise use in agriculture protects the soil, restores fertility, and provides valuable forage."

Oldershaw, A.W. Lupins as a light-land crop. [East Suffolk] [Gt. Brit.] Min. Agr. Agr. Jour. 43(3):164-168, illus. Dec. 1941. 10 G79J

"Reference, "p. 168.

"Much of the light land of this country is, initially, very poor in lime, and in connexion with its cropping the claims of lupins are worthy of consideration, since they are the only leguminous crop which will grow on land seriously deficient in lime. They can be grown easily on the poorest of light land, and greatly enrich the soil in humus and nitrogen.

"Where land has a very high degree of acidity, it is only with difficulty that the acidity can be completely corrected; in fact, it takes an appreciable time for any form of lime to get thoroughly incorporated with the soil. Hence, even after the application of some form of lime to very acid land, it is wise to grow, for the first year or two, crops which are not greatly affected by acidity, such as rye, oats, lupins or potatoes. At the present time the area devoted to lupins in Britain is comparatively small; it might with advantage be increased."

Schofield, J.L. Introduced legumes in North Queensland. Queensland Agr. Jour. 56(pt. 5):378-388, illus. Nov. 1, 1941. 23 Q33

References, "p. 388.

"A trial carried out at the Bureau of Tropical Agriculture, North Queensland, with numerous legumes comprising temperate, subtropical and tropical types is described.

"Results indicate that certain tropical legumes are satisfactory under coastal conditions in North Queensland, but temperate legumes are markedly unsuccessful.

"Information on the distribution, characteristics, planting and feeding value of the following tropical legumes is given:-

Stylosanthes gitanensis (Stylo), Stylosanthes guianensis, var. subviscosus (hairy Stylo), Centrosema pubescens (Centro), Pueraria phascoloides (Pueo), Calopogonium mucunoides (Calopo), Cajanus indicus (Pigeon pea) and Crotalaria usaramoensis (Croto).

"The possibilities of use of the above tropical legumes for pasture, grassland renovation, green manuring and soil conservation is discussed."

### Lespedeza

Cates, J.S. Lespedeza takes a state. Country Gent. 112(2):12, 50-51, illus. Feb. 1942. 6 C833

"Green fields of Korean blanket Missouri, spreading a new plow-free agriculture from cotton regions to rich Corn Belt lands."

### Locust Trees. Diseases

Grant, T.J., Stout, D.C., and Readey, J.C. Systemic brooming, a virus disease of black locust. Jour. Forestry 40(3):253-260, illus. Mar. 1942. 99.3 F768

"Literature cited," p. 260.

"Virus diseases differ from other plant diseases in many respects. The observations and data reported in this article provide the forester with a means of identifying the systemic brooming disease of black locust and should help him to recognize and understand the behaviour of diseases of this type when they are encountered in the forest."

### Moisture

Anderson, A.R. Planning for moisture stability. Mont. Farmer 20(12): 7, illus. Feb. 15, 1942. 6 M764

Rain maker's aid. Moisture meter tells a western farmer if his soil needs water and, if so, how much irrigating he should do.

Business Week no. 643, p. 24, illus. Dec. 27, 1941. 280.8 Sy8

### Mulches

Bennett, H.H. Conserving soil and water with stubble mulch. Agr. Engin. 23(2):[37]-38, 42, illus. Feb. 1942. 58.8 Ag83

"Paper presented December 3, 1941, at the fall meeting of the American Society of Agricultural Engineers at Chicago."

### Outlets

Christy, Donald. Outlet design for terraced lands. Agr. Engin. 23(1): 12-14, illus. Jan. 1942. 58.8 Ag83

"Conclusions. 1. Most constructed outlets are so expensive that they cannot be justified from an economic point of view.

"2. The meadow strip has possibilities as an outlet even when the value of the land used is charged to the outlet.

"3. It may be cheaper and more satisfactory to use the steepest part of the field as an outlet rather than the more valuable natural depression.

"4. The road ditch may be a satisfactory outlet providing farmer and highway department cooperation can be secured."

"5. It may be cheaper for the farmer and the public to allow some cultivated land to erode than to attempt to terrace and construct expensive outlets.

"6. The rational run-off formula, while subject to considerable



error, will give satisfactory results in the hands of the average agricultural engineer.

"7. The best outlet engineer is one who can, after a critical analysis of labor and materials available, design the least expensive serviceable outlet, and is not the man who can, with unlimited funds, labor, and material, build a great monument."

### Planimeters

Dickerson, L.M. An inexpensive planimeter. Jour. Forestry 40(1):19-22, illus. Jan. 1942. 99.8 F768

### Rain Gauges

Information on rain gauges. Calif. Cult. 39(1):11. Jan. 10, 1942. 6 C12

### Rainfall

Clarke-Hafstad, Katharine. Reliability of station-year rainfall-frequency determinations. Discussion. Amer. Soc. Civ. Engin. Proc. 68(1):145-151. Jan. 1942. 290.9 Am3P

"This paper by Katharine Clark-Hafstad was published in November 1940 Proceedings."

Visher, S.S. Regional contrasts in torrential rainfalls help to explain regional contrasts in erosion. Jour. Geol. 50(1):96-105, illus. Jan. Feb. 1942. 403 J82

"New data on rainfall intensity in the United States reveal notable regional contrasts in the amounts of rain received in short periods. In the eastern half of the United States there is a general southward increase in the amounts of rain received in short periods. The South receives about 50 per cent more water than the North in brief rains, but, in hard rains which last 8-24 hours, the Gulf coastal region receives more than twice as much rain as the northern part of the North. In the frequency of hard rains, the regional contrast is much greater, the deep South receiving large totals from ten to more than one hundred times as often as the North.

"Extensive comparable data on the extent of soil erosion have resulted from the Soil Conservation Service surveys of the eastern half of the United States. Despite many local variations in the extent of erosion, correlated with soil, slope, and land use, these data reveal a general southward increase in erosion upon comparable areas. A detailed analysis of the regional erosional contrasts in Indiana here summarized is followed by a more general summary for the rest of eastern United States. It is concluded that part of the regional contrasts in erosion can be correlated with the frequency and intensity of hard torrential rains."

### Range and Pasture Management

Combs, J.F. Pasture and range improvement. East Texas cattlemen and farmers make further progress in range program during 1941. Coastal Cattlemen 7(12):[7]-9, illus. Feb. 1942. 43.3 C93



Daubenmire, R.F. and Colwell, W.E. Some edaphic changes due to overgrazing in the Agropyron-Poa prairie of southeastern Washington. Ecology 23(1):32-40, illus. Jan. 1942. 410 Ec7

"Literature cited," p. 40.

"Summary: The most evicent effects of overgrazing in the Agropyron spicatum-Poa secunda prairie of southeastern Washington consist of the removal of the tall, dominant bunches of the perennial Agropyron and their replacement by dwarf annuals. This change involves a reduction in the mass of aerial shoots which would otherwise intercept precipitation as well as draw considerable water from the soil. Also, beneath the soil surface, plant succession involves the replacement of the coarse perennial roots of Agropyron by a tangle of shallow root systems produced by the annual plants.

"Resulting directly or indirectly from these vegetational changes caused by overgrazing, there is: (1) an increase in the amount of water accumulated in the soil during the winter, (2) a decrease in aeration of the soil, (3) a reduction in the ability of the soil surface to absorb water, (4) a reduction in the degree of aggregation of soil particles, (5) an increase in the population of bacteria, actinomyces, and molds in the upper decimeter horizon, (7) an increase in the nitrification power of the microflora, and (8) a decrease in available phosphorus."

Howe, C.E. Checking the limited grazing practice. U.S. Bur. Agr. Econ. Land Policy Rev. 5(1):28-30. Jan. 1942. 1 Ec7La

Limited grazing practice is included in Agricultural Adjustment Administration range program for 1942.

McIlvenie, S.K. A plan for range use. Mont. Farmer 20(12):[1], 23, illus. Feb. 15, 1942. 6 M764

"Good range management will result in soil and moisture conservation and continuous maximum yields of forage on the extensive range areas in central and eastern Montana; therefore, the principles of good range management are the stockman's primary concern. The most important of these are: Keeping the numbers of livestock for which the range is best adapted, timely seasonal use, and maintaining good distribution to obtain uniform use of the forage resources."

Struckman, R.P. Limited grazing is the road to range conservation. Mont. Farmer 29(10):5, illus. Jan. 15, 1942. 6 M764

"Limited grazing, in place of deferred grazing, is being accepted as the best and most realistic approach to the range conservation problem..."

### Reclamation of Land

Page, J.C. The final frontier - and what it means. U.S. Bur. Agr. Econ. Land Policy Rev. 5(1):6-12. Jan. 1942. 1 Ec7La

"The Commissioner of the Bureau of Reclamation, United States Department of the Interior, writes here about the tremendous work of his organization - vast in scope and highly significant in social implications. 'Bounteous benefits have already been reaped by the West and the entire Nation,' he says. 'Those benefits are

only a promise of the immense material and human wealth which can be added to the United States by full Reclamation development of Western resources."

### Research

Hayes, Anson. Agricultural and industrial research parallels. Agr. Engin. 23(1):15-18. Jan. 1942. 58.8 Ag83

Nichols, M.L. Agricultural and industrial research parallels. Discussion. Agr. Engin. 23(2):59. Feb. 1942. 58.8 Ag83

Paper by Dr. Anson Hayes, with above title, was presented at the fall meeting of the American Society of Agricultural Engineers at Chicago, December 1941, and published in the preceding issue of Agricultural Engineering.

Ramser, C.E. Agricultural and industrial research parallels. Discussion. Agr. Engin. 23(2):62. Feb. 1942. 58.8 Ag83

Above titled paper by Dr. Anson Hayes was presented at the fall meeting of the American Society of Agricultural Engineers at Chicago, December 1941 and published in the preceding issue of Agricultural Engineering.

Smith, W.E. Agricultural and industrial research parallels. Discussion. Agr. Engin. 23(2):62. Feb. 1942. 58.8 Ag83

Above titled paper by Dr. Anson Hayes was presented at the fall meeting of the American Society of Agricultural Engineers at Chicago, December 1941 and published in the preceding issue of Agricultural Engineering.

### Reservoirs

Kerr, C.H. Forty years of reservoirs. Mont. Farmer 29(11):7. Feb. 1, 1942. 6 M764

### Rivers

Quintero, A.G. Los efectos de la deforestacion en el regimen de los rios. Irri. en Mex. 22(5):339-347, illus. Sept./Oct. 1941. 55.8 Ir76

Spanish. Translated title: The effects of deforestation on the regimen of rivers.

### Run-off

Borst, H.L. and Woodburn, Russell. The effect of mulching and methods of cultivation on run-off and erosion from Muskingum silt loam. Agr. Engin. 23(1):19-22, 24, illus. Jan. 1942. 58.8 Ag83

"Bibliography," pp. 21-22.

Discussion by Francis A. Post, pp. 22, 24.

Fry, A.S. Surface runoff determination from rainfall without using coefficients. Discussion. Amer. Soc. Civ. Engin. Proc. 68(2):280-284. Feb. 1942. 390.9 Am3P

Paper with above title, by A.S. Fry, was published in April 1941 Proceedings.



## Sedimentation and Silt

Hack, J.T. Sedimentation and volcanism in the Hopi Buttes, Arizona.  
Geol. Soc. Amer. Bul. 53(2):335-372, illus. Feb. 1, 1942.

"References cited," pp. 371-372.

Abstract. The Hopi Buttes area in the southern Navajo Country, Arizona, lies in a Pliocene basin of sedimentation and volcanism. The thin, Pliocene sediments, known as the Tidahochi formation, are interbedded calcareous sand, clay, marl, tuff and other pyroclastic material. These sediments extend southeastward as far as the Zuni area, New Mexico. They overlie the Hopi Buttes erosion surface of low relief, a portion of which is now exhumed on the southern edge of Black Mesa. This surface may be widespread in northern Arizona. The Tidahochi formation and the erosion surface have evidently been deformed in Pliocene or post-Pliocene time.

"The Hopi Buttes area, which lies at the lowest point of the structural basin of deformation, contains Pliocene volcanic rocks of alkalic composition greater in volume than the sediments, and over 200 closely spaced volcanic necks or diatremes ranging from 500 to 4,000 feet in diameter, and arranged along a complex pattern of fractures.

"Flows are few in number, for the volcanism produced pyroclastic débris and lava domes. Deep erosion reveals that explosions produced funnel-shaped pipes which were rapidly filled with explosion débris, with material poured in by streams or with lava and viscous agglomerate erupted from below. Small rims protected many diatremes for a time from filling by river-borne sediments so that fine ash, gypsum, and calcium carbonate collected in their crater lakes to be later buried by coarser material as stream aggradation continued. The structure of the diatreme fillings indicates that subsidence occurred after eruption."

## Seeds

Calder, G.G. Production of ryegrass and white clover seed under irrigation. New Zeal. Jour. Agr. 63(6):497-498, illus. Dec. 15, 1941. 23 N48J

## Shelterbelts and Windbreaks

Shelter belts and wind-breaks of utmost importance to farm homes.

Wyo. Stockman-Farmer and Wyo. Indus. Jour. 48(2):9, illus. Feb. 1942. 6 C892

Taylor, E.H. The prairies can grow trees. Country Gent. 112(2):[13], 52-53, illus. Feb. 1942. 6 C833

"The Shelter Belt project, now a demonstrated success, has developed much practical information about varieties and tree-growing technique for the wind-swept Plains country."

## Snow Surveys

Harper, F.B. Snow harvest. Men on skis are up in the high mountains of the West today, reading there the story of tomorrow's crops down in the great irrigated valleys below. Country Gentleman 112(3):[9], 44-46, illus. Mar. 1942. 6 C833



Soil Conservation

Bennett, H.H. Conservation comes to the Golden Gate. U.S. Soil Conserv. Serv. Soil Conserv. 7(8):197-203, illus. Feb. 1942. 1.6 So38

Brink, Wellington. Soil defenders from overseas. Nature Mag. 35(2): 91-94, 103, illus. Feb. 1942. 409.6 N214  
Introduced plants used for soil protection.

Cook, L.G. Save the soil and you save all. N.J. Farm and Garden 13(2): 19-21, illus. Feb. 1942. 6 G162  
Discussion of New Jersey Agricultural Experiment Station publication entitled "Progress in Achieving Soil and Water Conservation and the Economic Aspects on Dairy Farms in the Flemington Area."

Crane, Jacob. Making Iowa over. The first ten years of a twenty-five year plan. The Land 1(4):318-321. Autumn 1941. 279.8 L22  
"The Iowa Twenty-Five Year Conservation Plan proposed soil conservation as the primary problem; set in motion a general land and cover survey; erosion control by landholders; stream bank and lake bank erosion control as elements of other portions of the plan; the conservation and restoration of woodlands, etc."

Crow, Bert. Save the soil. Ark. Agr. 19(6):14. Feb. 1942. 276.8 Ar42

Fellers, C.P. Soil conservation demonstrations. Agrarian 4(2):11, 22, illus. Dec. 1941. 276.3 A58  
"These demonstrations are an effective means of presenting new methods of soil conservation to South Carolina farmers."

Gabrielson, I.N. Soil and water are basic principles of real conservation. La. Conserv. Rev. 10(1):10-11, 14. Spring 1941. 279.9 L93C  
"This article is reproduced from the address delivered by Dr. Gabrielson to the delegates at the Baton Rouge convention of the Louisiana Wildlife Federation on Saturday evening, May 10, which was also broadcast over WJBO, a Baton Rouge radio station."

Hammett, J.W. Progress in soil conservation in Louisiana. La. Conserv. Rev. 10(2):22-27, illus. Summer 1941. 279.9 L93C

Lord, Russell. The war at our feet. There is danger that with our eyes to the sky we may ignore the damage to our soil. Country Life [Garden City, N.Y.] 81(5):21-22. Mar. 1942. 80 C832

McClymonds, A.L. Ups and downs of a Wyoming ranch. U.S. Soil Conserv. Serv. Soil Conserv. 7(9):218-222, illus. Mar. 1942. 1.6 So38

McDonald, Angus. My father preaches. The Land 1(4):306-309. Autumn 1941. 279.8 L22

McDonald, Angus. War and soil conservation. U.S. Soil Conserv. Serv. Soil Conserv. 7(9):221-229. Mar. 1942. 1.6 So38

Partain, L.E. Food for freedom with soil conservation. U.S. Soil Conserv. Serv. Soil Conserv. 7(8):177-178. Feb. 1942. 1.6 So3S  
Includes "list of recommended seasonal practices released to county USDA Defense Boards in Oklahoma".

Pooling efforts for soil conservation work. U.S. Soil Conserv. Serv. Soil Conserv. 7(8):130-132, 206. Feb. 1942. 1.6 So3S  
"...A summary recently made by the Michigan State Soil Conservation Committee of information supplied by each soil conservation district in that State of the sources and kinds of help being used by districts to carry on their work."

Sutton, J.G. Land for more people in the Mississippi Delta. U.S. Soil Conserv. Serv. Soil Conserv. 7(8):Back cover, 203, illus. Feb. 1942. 1.6 So3S

10-year plan for Utah prison farm where soil lives will be conserved. Utah Farmer 61(11):[3], illus. Jan. 25 1942. 6 D45  
Prepared by Education Information Division, Soil Conservation Service [Revision 8]

Winters, N.E. Defense and conservation are two phases of saving of soil. Hawaii Farm and Home 4(12):17, 19, illus. Dec. 15, 1941. 25 H3191

#### Soil Conservation. Economic Aspects

Collier, G.W. Problems in physical evaluation of soil conservation benefits. Jour. Farm Econ. 24(1):124-138. Feb. 1942. 280.3 J822  
In considering the physical evaluation of soil conservation benefits, I propose to discuss the relation between physical factors in the evaluation process (including the lack of consideration of physical factors in past evaluations), some problems in the interpretation of physical data now available, the need for further data, and the joint nature of the responsibility for performing the job of evaluating soil conservation benefits."

Johnson, N.W. Needed developments in the evaluation of soil conservation benefits. Jour. Farm Econ. 24(1):139-156. Feb. 1942. 280.3 J822  
Discussion, by G.H. Forster, p.151-153, and discussion by G.L. Jordan, pp.153-156.

#### Soil Conservation Districts

Burns, F.C. District and schools cooperate in handling equipment. U.S. Soil Conserv. Serv. Soil Conserv. 7(8):179-180. Feb. 1942. 1.6 So3S

Campbell, J.P. An agricultural movement marches on. Statistical story of the soil conservation district organization. U.S. Soil Conserv. Serv. Soil Conserv. 7(8):182-196, illus. Feb. 1942. 1.6 So3S  
Gives the organization of conservation districts by state to Dec. 15, 1941; Gives name, approximate acreage, number of operating units, number of farms, and general location of soil conservation districts established to Dec. 15, 1941.



Enthusiastic farmers back conservation districts. Ariz. Farmer 21(2):  
5,13,illus. Jan:17,1942. 6 Ar44

Stanford, J.E. Fresh from the field... South. Agr. 71(12):6,13,illus.  
Dec. 1941. 6 So83  
Broad River soil conservation district, Georgia.

This stockman believes in soil conservation districts. U.S. Soil Conserv.  
Serv. Soil Conserv. 7(9):230-232. Mar. 1942. 1.6 So38

"The stockman is William Lambert, of Pinielo, Montana. He is the  
author of the address, reproduced [in this article] which was  
delivered at educational meetings held to discuss formation of  
the Box Elder Soil Conservation District in Montana."

#### Soil Conservation. Entomological Aspects

Glick, P.A. and Lwing, K.P. Studies of insect damage to cotton with  
reference to soil-conservation practices. Jour. Econ. Ent. 34(6):  
737-741. Dec. 1941. 421 J. 22  
"Literature cited," p. 741.

#### Soil Erosion and Control

Control of soil erosion by cultivation and cropping methods. Agr.  
Gaz. N.S. Wales 52(pt. 12):613-620, illus. Dec. 1, 1941. 23 N472

Maintain surface cover and soil condition to control water and  
wind erosion. Influence of cultural methods in the Central Western  
wheat areas, by E.C. Powell, pp. 614-616; Erosion problems of Central  
Riverina. Control by pasture and cultural practices. Pastures, rota-  
tions and fallowing methods, by E.W. Bowmaker, pp. 617-619; On the  
wheat and sheep lands of Riverina. Diversification and careful  
stocking will check erosion by providing vegetative cover, by H.J.  
Dargin, pp. 619-620.

Crosby, Joe. Erosion can be controlled. Calif. Cult. 89(5):114-115.  
Mar. 7, 1942. 6 Cl2

Loyd, Glennon. Selective service for each acre. U.S. Soil Conserv. Serv.  
Soil Conserv. 7(9):209-210. Mar. 1942. 1.6 So38

"If we do our part there will be little need for farmers to call  
gully scarred or wounded acres to the front lines of this food for  
freedom production campaign. We do not want new gullies, or any  
additional erosion-scarred fields, after the campaign is over and  
the food for freedom program is an accomplished fact."

Myers, B.A. Erosion control on Lake Michigan's clay bluffs. U.S. Soil  
Conserv. Serv. Soil Conserv. 7(8):206-208. Feb. 1942. 1.6 So38

Olson, Lois. Erosion and economics in ante-bellum Virginia. Commonwealth  
9(2):18-19. Feb. 1942. 270.8 C732

Rockie, W.A. Pitting on Alaskan farm lands a new erosion problem.  
Geog. Rev. 32(1):[128]-134, illus. Jan. 1942. 570 Am35G



Strauss, Billy. Stop soil erosion! Ga. Agr. 34(4):5, 12, illus. Jan. 1942. 276.8 G29

### Soil Erosion and Control. Foreign Countries.

Croucher, H.H. Soil conservation. A lecture delivered to half-yearly meetings of certain associated branch societies. Jamaica Agr. Soc. Jour. 45(3):267, 269-271. Aug. 1941. 8 J223  
"The conservation of soil is a most important problem facing Jamaica at the moment."

Discurso pronunciado por el C. Subsecretario de Agricultura y Fomento, Ing. Alfonso Gonzalez Gallardo en la sesion inaugural de la primera convencion nacional forestal verificada en la sala de conferencias del Palacio de Bellas Artes de la ciudad de Mexico el dia 18 de agosto de 1941. Irrig. en Mex. 22(5):325-334. Sept./Oct. 1941. 55.8 Ir76  
Article in Spanish.  
Part V. Control of soil erosion.

Hardy, F. Soil erosion in Trinidad and Tobago. Trop. Agr. [Trinidad] 19(2): 29-35, illus. Feb. 1942. 26 T754

"Soil erosion in Trinidad and Tobago is mainly insidious sheet-erosion, which is variably affecting both sloping ground and flat alluvial lands. In addition, clay soils within wet areas are subject to land-creep and land-slip movements (namely, soil-creek, earthflow and debris-avalanche; slump, debris-slide and debris-fall).

"Erosion in Trinidad and Tobago is described in this article for each of the main topographical divisions in turn."

L., H.K. Soil erosion in Australia. Internatl. Sugar Jour. 44(513): 33-34. Feb. 1942. 65.8 In8

Reifenberg, A. Soil erosion in Palestine. Heritage of past neglect manaces country's future. Palestine and Middle East 13(9):168-170, 176, illus. Sept. 1941. 286.8 Pl72

### Soil Management

Raymond, L.C. On being forchanded with soil management. Macdonald Col. Jour. 2(1):8-9, illus. Sept. 1941. 101 M144

### Soil Moisture

Stephenson, R.E. Soil moisture conservation. Calif. Cult. 89(3):77. Feb. 7, 1942. 6 C12

### Strip Cropping

John, W.T. and Hays, O.E. The story of strip cropping. Wis. Conserv. Bul. 7(2):23-25, illus. Feb. 1942. 279.8 W752

"This is the sixth of a series of nine study helps on important phases of soil conservation. The content is prepared by staff members of the College of Agriculture of the University of Wisconsin in cooperation with the Department of Public Instruction. It is believed

teachers will find this series particularly helpful in teaching the underlying principles of soil conservation." W.T.Calhoun.

Wilbur, D.A., Fritz, R.F. and Painter, R.H. Grasshopper problems associated with strip cropping in western Kansas. Amer.Soc.Agron.Jour.34(1): 16-29, illus. Jan.1942. 4 Am34P

"Literature cited," p.29.

"Summary.1.In Greeley County, Kansas, where a large area is devoted to strip farming, certain practices designed to reduce soil blowing have aggravated the injury to fall wheat by Melanoplus mexicanus.

"2.In this region M.mexicanus frequently has a partial or complete second generation which in 1940 coincided with the germination of fall wheat.

"3.The extent of the field margins of strip-cropped wheat as compared to solid-planted wheat greatly influenced the amount of feeding injury by M.mexicanus as well as the amount of bait required to check the infestation."

"4.Strips of fall wheat bordered by small grain stubble suffered much more extensive injury than when bordered by sorghums even though considerable populations of the grasshopper were present in the sorghums, indicating that even a partial replacement of wheat or barley by sorghums tends to alleviate the M.mexicanus problem.

"5.Woody pastures, abandoned fields, and roadsides carried populations of mexicanus similar to those in the stubble and the injury to adjoining wheat fields was comparable to that of fields adjoining stubble.Improving the condition of the pastures and eliminating the roadside strips are desirable measures for combating the grasshopper problem.

"6.Thirty times more bait was used during August and September than was used in May through July.

"7.Distributing grasshopper baits before seeding wheat resulted in a marked reduction in the extent of injury to the wheat as compared to baiting only after seeding."

### Terracing

Coppley, T.L. Improved row system for terraced fields. Agr.Engin.23(3): 95-96, illus. Mar.1942. 58.8 Ag83

"Contour tillage is one of the principal erosion-control measures for cultivated crop land.It is included in the majority of soil conservation farm plans, and is recommended generally by most agricultural workers.It is an excellent companion measure for terraces, and the effectiveness of each practice is increased materially when they are used together.Terraces serve as a guide for contour tillage and as an outlet for the water draining from crop rows in the intervals above."

"Paper presented June 23, 1941, at the annual meeting of the American Society of Agricultural Engineers at Knoxville, Tenn."

Skelcher, J.L. Terracing exposure. Ark.Agr.19(6):15. Feb.1942. 276.8 Ar42



We have power to terrace right on our farms. Eastern Oklahoma farmers prove they can save soil without big machinery. Farmer-Stockman 55(4):78, illus. Feb. 15, 1942. 6 Ok45

### Tree Crops

Hershey, J.W. Tree crops in a permanent civilization. Country Life [Garden City, N.Y.] 81(5):31-[34], 62-63, illus. Mar. 1942. 80 C832

### Vegetation

Albertson, F.W. and Weaver, J.E. History of the native vegetation of western Kansas during seven years of continuous drought. Ecol. Monog. 12(1): [23]-51, illus. Jan. 1942. 410 Ec72

"Literature cited," pp. 50-51.

"The prairie vegetation of western Kansas has been studied through 7 years of continuous drought, 1933 to 1939, inclusive. Investigations were centered at Hays, but studies were made in many counties. Water content of soil has been determined weekly during the growing season, and a record of aerial environmental factors obtained. Reactions of the mixed prairie and short grass vegetation have been recorded year by year in scores of permanent, widely distributed quadrats, and by extensive field notes."

Bond, R.M. and Wallace, A.M. Invasion of a protected area by exotic plants. Sci. Monthly 53(5):470-472, illus. Nov. 1941. 47 Sci23

Egler, F.E. Indigene versus alien in the development of arid Hawaiian vegetation. Ecology 23(1):14-23, illus. Jan. 1942. 410 Ec7

"Literature cited," p. 23.

### Weeds

Cockrum, E.E. Weeds - a menace to profit. Experiments show how good farming practices will clean the land. Seed World 51(6):32-35. Mar. 20, 1942. 61.8 Ss52

Kansas "blitzes" the bindweed. Impl. and Tractor 57(2):8-9. Jan. 17, 1942. 58.8 W41

"Intensive cultivation is reducing this common agricultural hazard to the status of a minor pest. Test indicates that crop yields improve."

Saxby, S.H. Weeds. Much farm land has deteriorated through lack of control. New Zeal. Jour. Agr. 63(6):469, 471-476, illus. Dec. 15, 1941. 23 N48J

### Wildlife Conservation

Thornton, J.E. Improving conditions for farm wildlife. Va. Wildlife 5(1): 11-14, illus. Fall/Winter 1941/42. 410 V81

Webb, W.L. A method for wildlife management mapping in forested areas. Jour. Wildlife Mgmt. 6(1):38-43, illus. Jan. 1942. 410 J827

"Literature cited," p. 43.

"The mapping method described is based on the study of random



samples of the environment. Data taken in the field includes the presence and relative density of each plant species within the area of the sample.

"These data may be summarized in the form of species distribution maps that show the presence and abundance of important plant species in graphic form. The preferred method of analyzing the data, however, is a numerical designation called the rating. The rating expresses the distribution of each species and its abundance and provides a quantitative measure of its value to wildlife."

### Wind Erosion

John, W. W. Minnesota's wind erosion problem. Demonstration projects indicate a solution. Minn. Dept. Conserv. Conserv. Volunteer 3(18): 45-47, illus. Mar. 1942. 279.8 C765

"More than twelve million acres of Minnesota farm land are affected by soil-blowing."

### BOOK AND PAMPHLET NOTES AND ABSTRACTS

Adelaide. University. Waite agricultural research institute. Report of the Waite agricultural research institute, South Australia, 1939-1940. 53pp. Adelaide, 1941. 109 Ad32E 1939/40

Chapman, P. W. Better rural communities. Community aspects of rural life in the south. 251pp., illus. Chicago, Textbook Division, Science Research Associates, 1941. 281.2 C362B

Southern progress series in rural living, book 2.

Working together to conserve natural resources, pp. 85-121.

Civil service assembly of the United States and Canada. Public relations of public personnel agencies. A report submitted... by the Committee on public personnel agencies. 259pp. Chicago, Civil service assembly of the United States and Canada, 1941. 249.3 C492P

Coile, T. S. Soil changes associated with loblolly pine succession on abandoned agricultural land on the Piedmont plateau. Duke Univ. School Forestry Bul. 5. 85pp., illus. Durham, 1941. 99.9 D8C no. 5  
"Literature cited," pp. 83-84.

Coleman, J. P. The last million years, a history of the pleistocene in North America. Edited by G. F. Kay, with a foreword by F. S. Lewis. 216pp., illus. Toronto, University of Toronto press, 1941. 400 C67  
Contains references.

Flynn, H. E. and Perkins, F. E. Conservation of the nation's resources. 385pp., illus. New York, Macmillan company, 1941. 279.12 F67

"In writing this book the authors have had in mind the organization of the main facts about the conservation of the resources of the United States and the presentation of these facts in such a way as to be understandable to the youth of our country." - Preface.

- Foster, V.M. and McCutcheon, T.E. Forrest county mineral resources. Miss. State Geol. Surv. Bul. 44. 87pp., illus., map. University, Miss., 1941. 406 M693 no. 44  
Geology, by V.M. Foster; Tests, by T.E. McCutcheon.
- Graham, Michael. Soil and sense... with a preface by Sir E. John Russell. 274pp., illus. London, Faber and Faber Ltd. [1941] 32 G762
- Griffith, Moses. The best utilization of hill land. Welsh Plant Breeding Sta., Aberystwyth, War Food Prod. Adv. Bul. no. 4. 20pp. Aberystwyth, 1941. 389.9 Un34 no. 4
- Imperial bureau of soil science. Bibliography of soil science, fertilizers and general agronomy, 1937-1940. 504pp. Harpenden, England, Imperial bureau of soil science, 1941. 241 Im7Bs 1937/40
- Iowa. University. Institute of hydraulic research. Investigations of the Iowa Institute of hydraulic research 1939-1940. Papers, abstracts of theses and research reports, and reference list of staff publications, edited by J.W. Howe. Iowa Univ. Studies Eng. Bul. 26. 56pp. Iowa City, 1941. 290.9 I093 no. 26
- Kansas state board of agriculture. Report of the Kansas state board of agriculture, August, 1941. Kans. State Bd. Agr. [Pub.] vol. 60, no. 244. 24pp., illus. Topeka, 1941. 2 K13Re  
"Containing the law relating to dams on dry water resources and information relative thereto."
- National fire protection association. Fire defense. A compilation of available material on air-set fires, bombs and sabotage, civilian defense, fire fighting, and the safeguarding of industrial production for defense. 220pp., illus. Boston, Mass., National fire protection association, [1941] 296.6 N21Fi
- National reclamation association. Proceedings tenth annual meeting, Phoenix, Arizona, October 15, 16, 17, 1941. 236pp. Washington, D.C. [1931] 55.9 N212 10th 1941
- Pacific science congress of the Pacific science association. Proceedings ... held at the University of California, Berkeley, Stanford university, and San Francisco, July 24th to August 12th, 1939. v. IV. Berkeley, and Los Angeles, University of California press, 1940. 330.9 P194 6th w  
Partial contents: Soil conditions and land use in Oregon, by W.L. Powers, pp. 843-847; Soil conditions and land use in Washington, by L.C. Whetling, pp. 849-852; Soil zones and land use in western Canada, by J.H. Ellis, pp. 853-866; The classification of natural land divisions and the application of this classification to land use and conservation, by R.E. Storie, pp. 867-868; The topotaxic soils of Mexico, by Miguel Branhila, pp. 869-971; The work of the Comisión nacional de irrigación in soil and land-use studies, by José Mercado and Miguel Branhila, pp. 873-875; Soil-erosion control in the central plateau of Mexico, by L.R. Patiño, pp. 877-[883]; Some observations of the soils of the Pacific slope of Guatemala, by L.C. Whetling, pp. 885-889; The eleventh commandment, by W.C. Lowdermilk, pp. 891-896; The relation of



soil erosion to land utilization in the territory of Hawaii, by J.W.Coulter, pp.897-901; The erosion of Hawaiian soils, by H.A.Wadsworth, pp.902-903; A neglected aspect of land utilization in Hawaii, by Walter Carter, p.903; Soil erosion as related to land utilization in the humid tropics, by R.L.Pendleton, pp.905-920; Soil conditions and land use in China, pp.921-931; Land utilization in south China, pp.933-940; Geographical studies of land use in Japan, by Tarô Tudimura and Isamu Matui, pp.941-960; Land classification and utilization in Australia, by J.K.Taylor, pp.961-968; Laterite in Siam and Cambodia, by R.L.Pendleton, pp.969-971; Laterite in connection with Pendleton's discussion of the soils of Siam, remarks by James Throp, p.972; Further notes on laterite, by R.L.Pendleton, pp.973-978; Reply to Dr.Pendleton on "Further notes on laterite," remarks by James Throp, pp.979-980; Discussion of laterite, by J.K.Taylor, p.981; Discussion of laterite, remarks by J.S.Hosking, p.983; Topographic influences on precipitation, by Herbert Storey, pp.985-993.

Pennsylvania.University.Bicentennial conference. Fluid mechanics and statistical methods in engineering. 146pp.,illus. Philadelphia, University of Pennsylvania press,1941. 334 P38

Contents.- Fluid mechanics.The rôle of transition from laminar to turbulent flow in fluid mechanics, by H.L.Dryden; Problems of flow in compressible fluids, by Theodore von Kármán; Investigations of liquid turbulence and suspended material transportation, by A.A.Kalinske; Mass transfer and friction in turbulent flow, by T.K.Sherwood. Statistical methods in engineering. Contribution of mathematical statistics to scientific methodology, by C.S.Wilks; Contribution of statistics to the science of engineering, by W.A.Shewhart; Contribution of statistics to the development and use of purchasing specifications and standards of quality, by L.E.Simon; The relation of statistical quality standards to law and legislation, by Roscoe Pound.

Regional agricultural council for the southern Great Plains states. Report of the thirty-first conference...Amarillo,Texas, October 22 and 23, 1941. v.p.,mimeogr. [Amarillo?,1941] 282.9 R26 31st 1941

Partial contents:Implements used in stubble tillage, by H.G.Porterfield; Progress of crop residue management in Region 6, by F.J.Sykes; Soil and moisture conservation, by F.L.Duley; Utilization of crop residues in dry-land crop production, by O.R.Mathews.

Society of biological chemists,India. Annual review of biochemical and allied research in India,v.11 for 1940. 173pp. Bangalore, 1941. 385 Sol3

Part XVI.Soils,fertilisers and manures, by S.C.Pillai, pp.143-162.

South Carolina.Dept.of education.Division of vocational agriculture. Teaching material for the solution of farm and home problems;teaching activities for soil and moisture conservation on the home farm. For use of teachers of agriculture and home economics.Prepared under the direction of divisions of vocational agriculture and home economics,State department of education,in cooperation with the United States Department of agriculture,Soil Conservation Service. Southeastern region. 35pp.,processed. Columbia,S.C.,1940. 56.7 So86

South Carolina.State planning board. Fourth annual report...to the General assembly of the State of South Carolina for the fiscal year 1940-1941. 52pp.,illus. [Columbia,1941] 280.7 S68292 4th 1940/41

Stapledon,Sir R.G. Ley-farming. Welsh Plant Breeding Sta.,Aberystwyth, War Food Prod.Adv.Bul.no.2. 22pp. Aberystwyth,1941. 389.9 Un34 no.2

Tothill,J.D.,ed. Agriculture in Uganda,by the staff of the Department of agriculture,Uganda. 551pp.,illus. London,Oxford university press,1940. 35.4 T64

Partial contents:Uganda soils,by W.S.Martin, G.Griffith and reviewed by E.J.Wayland,pp.59-73;Soil erosion problems in Uganda,by W.S.Martin,pp.73-87;Manures,by W.S.Martin,pp.87-100;Cover crops, by S.A.Thomas,pp.474-480;Grasses,by A.S.Thomas,pp.496-502;Grazing in Uganda,by D.S.Davies,W.J.Babcock,and others,pp.503-512.

Wyoming.Laws,statutes,etc. Wyoming irrigation laws,existing statutes to and including 1941 session laws.Compiled by L.R.Tyson,jr. 89pp. [Laramie]1941. 55 W99W

Wyoming.Planning and water conservation board. First biennial report... 1939-1940. 13 numb.1.,mimeogr. Cheyenne[1941?] 280.7 W992B 1st

Zanetti,J.E. Fire from the air,the ABC of incendiaries. 54pp.,illus. New York,Columbia university press,1941. 315 Z1  
Bibliography:following p.54.

#### STATE EXPERIMENT STATION AND EXTENSION PUBLICATIONS

##### Alabama

[Davis,C.S.] Man - land - phosphate.A cooperative program of the TVA and the Alabama Polytechnic Institute. Ala.Polytech.Inst.Ext.Serv. Cir.220. 37pp.,illus. Auburn,Jan.1941. 275.29 AllC no.220  
Soil conservation,pp.16-20,illus.

##### Arizona

McGeorge,W.T. Influence of Colorado river silt on some properties of Yuma mesa sandy soil. Ariz.Agr.Expt.Sta.Tech.Bul.no.91. 217pp., illus. Tucson,1941. 100 Ar  
"Literature cited,"p.217.  
"Conclusions:1.Settling volume,pore space,moisture equivalent,and water-holding capacity of Superstition sand are all increased by incorporating Colorado river silt.2.Percolation rate and rate of capillary water movement are reduced by incorporating silt.3.A sizable supply of available potassium,calcium,and phosphate is added to these sandy areas by incorporation of river silt."

##### California

Adams,R.L.and Smith,W.H.,jr. Farm tenancy in California and methods of leasing. Calif.Agr.Expt.Sta.Bul.655. 119pp. Berkeley, 1941. 100 Cl25 Bul.655



Georgia

Georgia agricultural experiment station. Fifty-third annual report...  
for the year 1940/41. 161pp.,illus. Experiment,1941. 100 29S 194741  
Southern piedmont soil and water conservation experiment station,  
Watkinsville, Ga.,pp.149-153.

Kentucky

Kentucky. Department of agriculture, labor and statistics. 34th biennial  
report...for the fiscal years 1939/40 and 1940/41. 144pp.,illus.  
Frankfort,1941. 2 K41R  
Soil conservation,pp.67-69.

Maine

Miller, S.R. Solving land-use problems. Maine Agr.Col.Ext.Bul.298.  
20pp.,illus. Orono, Jan.1942. 275.29 M281B no.298

Michigan

Toenjes, Walter. The first twenty years results in a Michigan apple  
orchard. Cultivation-cover crop vs. Sod-mulch culture. Mich.Agr.Expt.  
Sta.Spec.Bul.313. 18pp.,illus. East Lansing,1941. 100 M58S SpecBul.313

Veatch, J.O. Agricultural land classification and land types of Michigan.  
Mich.Agr.Expt.Sta.Spec.Bul.231(first revision) 67pp.,illus.,maps.  
East Lansing,1941. 100 M58S Spec.Bul.231

Missouri

Clark, K.W. Diversion dikes and channels for saving soil. Mo.Ext.Serv.  
Cir.434. 8pp.,illus. Columbia,1941. 275.29 M69C no.434

Clark, K.W. and Woolley, J.C. Water management for the farm. Conserving soil  
and water for efficient production of crops and livestock. Mo.Agr.  
Ext.Serv.Cir.433. 11pp.,illus. Columbia,1941. 275.29 M69C no.433

Drew, W.E. and Helm, C.A. Representative Missouri woods and their control.  
Mo.Agr.Expt.Sta.Bul.433. 211pp.,illus. Columbia, Aug.  
1941. 100 M693 no.433

Helm, C.A. Management of sweet clover in a pasture system. Mo.Agr.Expt.  
Sta.Cir.215. 10pp.,illus. Columbia, Nov.1941. 100 M693 no.215

Woolley, J.C., Clark, W.L. and Beasley, R.P. The Missouri soil saving dam. Low-  
cost structure for use in farm plans for water management. Mo.Agr.  
Expt.Sta.Bul.434. 23pp.,illus. Columbia, Oct.1941. 100 M693 no.434

Nevada

Billings, W.D. Grasses and clovers for Nevada farm and range. Nev.Agr.  
Col.Ext.Bul.89. 68pp.,illus. Reno, Feb.1941. 275.29 M41 no.89

Harris, F.B. A short cut method of computing grazing capacity ratings from range survey forage estimates. Nev.Agr.Expt.Sta.Bul.155. 15pp. Reno, 1941. 100 N41S no.155

#### New Mexico

Stroud, Rufus. Field-crop experiments at the Conservancy district sub-station, 1938-1940. N.Mex.Agr.Expt.Sta.Bul.279. 24pp., illus. State College, 1941. 100 N465 no.279

#### New York

New York.Cornell agricultural experiment station. Fifty-fourth annual report 1941. 202pp. [Ithaca, 1941] 100 N48C 54th 1941  
Drainage, p.39; Soil conservation, pp.39-40; Irrigation, p.40; Soil-erosion control and soil conservation, pp.43-44.

#### Pennsylvania

Dickey, J.B.R. Domestic ryegrass as a winter cover crop. Pa.State Col. Ext.Leaflet 72, rev. [4]pp., illus. State College, Apr. 1941. 275.29 F38L no.72

#### South Carolina

Peterson, M.J. and Kinard, J.D. Farm management in Newberry County, South Carolina. S.C.Agr.Expt.Sta.Bul.338. 31pp., illus. Clemson, Jan.1942. 100 S68 no.338

#### South Dakota

South Dakota.Extension service. A brief of the preliminary land use planning report of the major problems in Hand county. So.Dak. Ext.Serv.Spec.Ext.Cir.51. 23pp., illus. Brookings, 1940. 275.29 S685Sp no.51

#### Texas

Hatfield, Sadie, and Simmons, C.W. You can grow trees in spite of drought and wind. Tex.Agr.Col.Ext.[Cir.]C-123. 8pp., illus. College Station, 1942. 275.29 T312C no.C-123

Texas.Agricultural and mechanical college. Proceedings of the first annual conference on surveying and mapping, conducted by the School of engineering, Department of civil engineering in cooperation with the General land office, held at the Agricultural and mechanical college of Texas, May 20-21, 1940. Tex.Engin.Expt.Sta.Engin.Expt.Ser.no.56. 77pp. College Station, Tex., 1941. 290.9 T31 no.45



Virginia

Dickerson, W.H., jr. and Rogers, H.T. Surface run-off and erosion from permanent pastures in southwest Virginia as influenced by applications of triple superphosphate. Va. Agr. Expt. Sta. Tech. Bul. 77. 26pp., illus. Blacksburg, 1941. 100 V81S Tech. Bul. 77  
"References," pp. 26-26.

"The primary objectives of this investigation were (a) to obtain quantitative data on the amount of erosion and surface run-off losses from representative unimproved permanent pasture in Southwest Virginia, and (b) to determine the effect of pasture improvement through the use of triple superphosphate on these soil and water losses."

Washington

Heisig, C.P. Settlement and development of cut-over lands of western Washington. Wash. State Col. Ext. Serv. Bul. 277. 8pp. [Pullman] Nov. 1941. 275.29 W27P no. 277

U. S. GOVERNMENT PUBLICATIONS

Agriculture Department

Faires, E.W. and others. Experiments with annual crops and permanent pastures to provide grazing for dairy cows in the sandhill region of the southeast. U.S. Dept. Agr. Tech. Bul. 805. 42pp., illus. Washington, U.S. Govt. print. off., 1941. 1 Ag84Te no. 805

Hepting, G.H. Reducing losses from tree diseases in eastern forests and farm woodlands. U.S. Dept. Agr. Farmers' Bul. 1887. 21pp., illus. Washington, U.S. Govt. print. off., 1942. 1 Ag84 F no. 1887

U.S. Department of agriculture. The Texas-Oklahoma high plains. A subregional description and analysis. 60pp., maps, mimeogr. [Amarillo, Tex., 1941] 1.90 C2S08  
"List of references," pp. 57-60.

U.S. Department of agriculture. Watch your step. Farm safety for national defense. Prepared by Wellington Brink. U.S. Dept. Agr. Misc. Pub. 481. 32pp., illus. Washington, U.S. Govt. print. off., 1942. 1 Ag84M no. 481

U.S. Department of agriculture. Office of information. Division of publications. The publications of the United States Department of agriculture and the policies covering their distribution, by M.C. Merrill, chief of publications, U.S. Department of agriculture. Delivered before the Public documents committee of the American library association, Boston, Mass., June 23, 1941. 23pp., processed. [Washington, 1941] 1.914 P2P96

U.S. Farm security administration. Toward farm security. 246pp., illus.  
Washington, U.S. Govt. print. off., 1941. 1.5 T65  
Bibliography, pp. 220-236.

U.S. Office of land use coordination. The first five years of the Regional  
agricultural council for the southern great plains. 43 numb. 1.,  
mimeogr. Amarillo, Tex. [1941?] 1.915 A2F51

"At the October, 1940, meeting of the Southern great plains regional  
agricultural council, the retiring chairman, F.A. Anderson, asked the  
Coordinator to prepare a history of the council since its inception  
in 1935. The history accordingly constitutes a review of the  
activities of the Council during the five years from the first  
meeting in Pueblo, Colorado, December 12-13, 1935, through the 28th  
meeting, and the last one of the 1940 calendar year, held in Waco,  
Texas, October 17-18, 1940."

U.S. Office of land use coordination. Flood control. Derivation of in-  
filtration-capacity curve from infiltration experiments, by R.F.  
Horton. 18pp., mimeogr. Washington, D.C., 1942. 1.915 F2D44

### Soil Conservation Service

Burne, A.C. and Collier, G.W. A method of estimating the economic effects  
of planned conservation on an individual farm. U.S. Dept. Agr. Misc.  
Pub. 463. 28pp. Washington, U.S. Govt. print. off., 1942. 1 Ag84M no. 463  
Soil conservation service and Bureau of agricultural economics,  
United States Department of agriculture, in cooperation with the Iowa  
Agricultural experiment station.

Garin, A.N. Advance report on the economic effects of predicted sedimenta-  
tion in Morris Sheppard lake, Texas. U.S. Soil Conserv. Serv. TC-3.  
18pp., illus., mimeogr. Washington, D.C., 1941. 1.96 Ad6 Ec no. 3  
In cooperation with the Texas Agricultural experiment station.

Heggie, T.L. Increased forage, the key to wise wartime livestock production.  
U.S. Soil Conserv. Serv. Southwest. Reg. Reg. Bul. 77. 6pp., mimeogr.  
Albuquerque, 1942. 1.9608 R26 no. 77  
Also Range management series no. 3.

Laws, J.O. Measurement of the fall-velocities of water-drops and raindrops.  
U.S. Soil Conserv. Serv. TP-45. 33 numb. 1., illus., mimeogr. Washington,  
D.C., 1941. 1.96 Ad6Tp no. 45  
"References," p. 33.

U.S. Soil conservation service. Cooperative research in sedimentation  
studies at Pasadena, Calif. 17pp., illus. [Washington, D.C.,  
1941] 1.96 R31Cr Pasadena

Soil conservation service, U.S. Department of agriculture and  
California Institute of technology.

"The pictures and graphs presented in this booklet were furnished  
by Vito A. Vanoni, Hugh Stevens Bell, Brooks T. Morris, J. Pat O'Neill,  
and Grace N. Newberg, members of the staff at Pasadena and are  
presented for the information of the Soil conservation service  
technicians, and are not for public instruction."



U.S. Soil conservation service. Cooperative research in soil and water conservation at Spur, Texas. 28 numb.l., illus. Washington, D.C., 1941] 1.96 R31Cr Spur  
Soil conservation service, U.S. Department of Agriculture and Texas Agricultural experiment station.

"The pictures and graphs presented in this booklet were furnished by R.E. Dickson, B.C. Langley and C.E. Fisher, members of the staff at the Spur station and are presented for the information of Soil conservation service technicians and are not for public distribution."

U.S. Soil conservation service. Report of the chief... 1941. 75pp. Washington, U.S. Govt. print. off., 1941. 1 So3P 1940/41

U.S. Soil conservation service. Suggested subject matter for group planning meetings, by Regional committee on group planning. U.S. Soil Conserv. Serv. Ohio Val. Reg. Admin. Pointers 13. 16pp., mimeogr. Dayton, Jan. 8, 1942. 1.9603 Ad6

U.S. Soil conservation service. Forestry division. Handbook for farm woodland management. unp. [Washington, D.C., 1941] 1.96 Op2Ha  
Administrative handbook. Not for general distribution.

U.S. Soil conservation service. Northern great plains region. Annual report, 1940/41. 209 numb.l., mimeogr. [Lincoln, 1941] 1.9607

U.S. Soil conservation service. Pacific northwest region. Symposium of talks given at Inland empire education association, Spokane, Washington, April 9, 10, 11, 1941, by Anne Raymond. 46 numb.l., mimeogr. [Spokane, 1941] 1.9609 Sy6

Issued by Pacific northwest region and Southwest region.

Contents: Conservation in curriculum building; Utilization of environment in teaching; The land as a textbook; What school boards can do to aid in the conservation of our natural resources.

U.S. Soil conservation service. Southern great plains region. Annual report, 1940/41. 69pp., mimeogr. [Amarillo, Tex., 1941] 1.9606 An7 1940/41

### Miscellaneous

U.S. Civilian conservation corps. Annual report of the director... fiscal year ended June 30, 1941. 76pp. Washington, U.S. Govt. print. off., 1941. 173.2 C76Re 1940/41

U.S. Congress. House. Committee on rivers and harbors. Beaver and Mahoning rivers, Pa. and Ohio. Hearings... seventy-seventh Congress, first session on the subject of The improvement of the Beaver and Mahoning rivers, Pa. and Ohio. September 30, October 1, 2, 3, and 6, 1941. 511pp. Washington, U.S. Govt. print. off., 1941. 148.9 R77Be

- U.S.Congress.Senate.Committee on finance. To amend the Sugar act of 1937, as amended.Hearing before the Committee on finance,United States Senate, 77th Congress, 1st session on H.R.5988...Revised. December 9,1941... Washington, U.S.Govt.print.off.,1941. 148.7 F77Su
- U.S.Engineer school. Mapping,1941 edition. Prepared under the direction of the Chief of engineers for use with the Extension course of the Engineer school. 43pp. Fort Belvoir,Va.,1941. 162/26 M322  
Army extension courses.Special text no.109.
- U.S.Fish and wildlife service. ...Feeding wildlife in winter. U.S. Dept.Int.Conserv.Bul.13. 20pp.,illus. Washington, U.S.Govt.print.off.,1941. Library of Congress
- U.S.Geological survey. Water levels and artesian pressure in observation wells in the United States in 1940. Part 5. Northwestern states,by O.E.Meinzer, L.K.Wenzel and others. U.S.Geol.Survey.Water-Supply Paper 910. 184pp. Washington, U.S.Govt.print.off.,1941. 407 G29W no.910
- U.S.Department of the interior.Grazing service. Annual report...1940/41. pp.247-261. Washington, U.S.Govt.print.off.,1941. 156 In7A  
"Reprinted from the annual report of the Secretary of the interior.
- U.S.National resources planning board. Progress report 1940-1941. 81pp. Washington, U.S.Govt.print.off.,1941. 173.2 N214P
- U.S.Bureau of reclamation. Irrigable land on the Columbia basin reclamation project. 16pp.,illus. Washington, U.S.Govt.print.off.[1942] 156.85 Ir73
- U.S.Tennessee valley authority. Annual report...for the fiscal year ended June 30,1941. 289pp.,illus. [Washington, U.S.Govt.print.off.,1942. 173.2 T25A 1940/41

#### PERSONNEL AND TRAINING

- Appley,L.A. Basic administrative practice. 10pp.,processed. [Washington],U.S.Dept.of agriculture,Office of personnel,Division of training,1941. 1.917 T2B29
- Benge,E.J. Job evaluation and merit rating.A manual of procedures. 73pp.,29 charts. New York,National foremen's institute,inc. [1941] 249.3 B43
- Gant,G.F. Public personnel administration in the national emergency. Pub.Personnel Rev.3(1):1-6. Jan.1942. 249.38 P962
- Hawthorne,J.W. Progress in methods of personnel selection. Pub. Personnel Rev.3(1):11-19. Jan.1942. 249.38 P962



Short, O.C. Internal management of a central personnel agency. Pub.  
Personnel Rev. 3(1):7-10. Jan. 1942. 249.33 P962

U.S. Tennessee valley authority. Personnel department. Training division.  
Training program for assistants in the Personnel department.  
22 numb. 1., mimeogr. [Knoxville?] 1941 173.2 T25Tra 1941

FINIS